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ABSTRACT

When it comes to understanding and using information technology, today's pre-service education students often know more about technology than their college professors or their field-based teachers in K-12 classrooms. University and K-12 faculty members, on the other hand, know more about teaching and learning than pre-service students and less about technology. By bringing these two groups together as student mentor-faculty pairs, both students and faculty members benefit from the expertise of the other. This paper describes how the Faculty Mentor Program developed at the University of Vermont (an initiative of the Preparing Tomorrow's Teachers to Use Technology, or PT3, Implementation Grant) brings education students and university faculty together to support new ways of learning for both groups. (Contains 10 references.) (Author)

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Students as Faculty Mentors: Reversing the Role of Teacher and Learner

Sandra A. Lathem, Holly Buckland Parker, Joyce L. Morris, Adam Deyo, Russell M. Agne
College of Education and Social Services
University of Vermont
United States
Sandra.Lathem@uvm.edu
Holly.Buckland@uvm.edu
Joyce.Morris@uvm.edu
Adam.Deyo@uvm.edu
Russell.Agne@uvm.edu

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Abstract: When it comes to understanding and using information technology, today's pre-service education students often know more about technology than their college professors or their field-based teachers in K-12 classrooms. University and K-12 faculty members, on the other hand, know more about teaching and learning than pre-service students and less about technology. By bringing these two groups together as student mentor-faculty pairs, both students and faculty members benefit from the expertise of the other. This panel will describe how the Faculty Mentor Program developed at the University of Vermont (an initiative of the Preparing Tomorrow's Teachers to Use Technology [PT^3] Implementation Grant) brings education students and university faculty together to support new ways of learning for both groups.

Powerful Partnerships

Powerful partnerships can occur when college students are given an opportunity to teach their teachers. By facilitating student mentor-faculty pairs, new relationships are established, new skills are acquired and modeled, coursework is reinforced by practical experience, and student knowledge is tapped and utilized. When the roles are reversed, when the learner is given an opportunity to become the teacher, both sides gain.

To prepare teachers to work in tomorrow's classrooms, education students must be engaged in a program that allows them to learn not only the skills to use technology effectively but also the ability to integrate information technology to improve student learning. Part of the pre-service teacher's professional preparation should include a teacher education faculty who are not only skilled in using technology systems and software but model effective use of technology as a standard component of coursework (National 2000). Pre-service teachers typically are exposed to at least one course in information technology during their preparatory program. Through this course, students either learn new technology skills and applications or reinforce existing skills. It is less common, however, that teacher education programs have faculty who are modeling the effective integration of computer technology. Without these role models, pre-service teachers are less likely to use technology in their own teaching (Beisser 2000). National educational technology standards recommend that pre-service teachers know how to use and integrate technology, both for instructional and professional purposes (National 2000). In effect, pre-service teachers are being asked to meet standards that are seldom modeled and that their college teachers and in-service cooperating teachers often fail to meet themselves.

Because college students often have or acquire information technology skills through coursework, their knowledge can be tapped to support college and in-service faculty. "Using graduate students to mentor college of education faculty has been shown to be an effective technique for integrating technology into the coursework of pre-service teachers" (Beisser 1997). When graduate students are unavailable, undergraduate students have also been an effective option (Beisser 1997).

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Faculty Mentor Program

Recognizing the need to promote and support the use of information technology in its educational program, the College of Education and Social Services at the University of Vermont (UVM) initiated a Faculty Mentor Program in the Spring semester of 2001 as part of the Preparing Tomorrow's Teachers to Use Technology (PT^3) Implementation Grant. The Faculty Mentor Program was created to help education faculty (both within and outside UVM) strengthen technology skills and to increase the integration of information technology in college coursework. Undergraduate education students were paired with K-16 faculty members to accomplish a set of goals established by the faculty member, the student mentor and a PT^3 grant team member. Initially, three University faculty and one K-12 faculty member volunteered to work with undergraduate students. In the Fall semester of 2001, five University faculty members established student mentor partnerships and additional support was extended to three, in-service K-12 faculty members working with pre-service teachers. In the Spring semester of 2002, the number of student mentor-faculty pairs is anticipated to increase to twenty.

Both students and faculty benefit from this relationship. Students elect to earn $10/hour or college credit for their work. Within UVM, education faculty members have worked with student mentors to create online course syllabi and resources, develop new online courses, and to improve or enhance courses already in place. With student mentorship, faculty members have learned new software, explored new presentation models, developed online courses using WebCT, and have begun to model the use of information technology in their courses. (Examples may be found at: *http://www.uvm.edu/~inquiryb/, http://www.uvm.edu/~lithlock/, http://www.uvm.edu/~crathbon/*.)

Through this experience, students establish a working relationship with their professors, reinforce their own technology skills by becoming the teacher, and participate in discussions with the professor about the rationale and purpose of the materials under construction. In fact, some student mentors have been instrumental in advising faculty members about ways to improve or strengthen course work. These student mentors have become "critical friends" of their professors and both parties have become co-learners.

In the K-12 arena, student mentors have the opportunity to work in a local school district with a classroom teacher and their students. In this partnership, the student mentor may work directly with the classroom teacher to strengthen the teacher's technology skills or with students to integrate technology into the curriculum. Often, the student mentor may be more knowledgeable than the classroom teacher about the use of technology skills. Student mentors have helped K-12 faculty learn how to use presentation software (such as PowerPoint) with middle school students to create science presentations, to introduce basic word processing, keyboarding, and paint program skills to second grade students, to research educational software available in the classroom, and to create web pages for curriculum or classroom projects. In turn, mentor students learn more about the complexities of being a classroom teacher. Here again, mentors and teachers share their knowledge and expertise and mutually contribute to their learning.

Studies have shown that it takes five to six years for teachers to use technology effectively in their teaching (Beisser 2000). Ongoing support therefore is critical to support professional development efforts in information technology. Student mentors can be employed to reinforce concepts and skills learned during PT^3 workshops or summer institutes. This continual assistance enables the faculty member to move forward while providing reinforcement for the student mentor as well. Practical applications of technology provide students with models for their future growth as computer-using teachers.

Outcomes

As a result of the Faculty Mentor Program, notable growth has been seen in the use and modeling of information technology. More University faculty members have begun to borrow laptop computers and more time has been devoted to developing new online projects. Without the support of the student mentors, this increase in use and interest would not have been as rapid. Faculty members who are now using technology to support their courses are gaining recognition. As faculty web pages improve, other faculty members become increasingly interested in how technology can improve their course presentations. Students who enroll in courses offered by professors that use technology "spread the word" about the course to other students. This interest, in turn, encourages more faculty members to integrate technology into their coursework and to consider new approaches. Faculty members are beginning to publish online exemplars of student work. This enables the professor to

demonstrate an expectation for student work and, as a result, the standards for student performance have been raised. Some faculty members have begun to archive student work online, allowing the student's work to become a knowledge base for other students. This growth in the use and modeling of information technology has been supported by the efforts of student faculty mentors.

The Faculty Mentor Program provides an opportunity for pre-service teachers to reinforce their skills in information technology. Students establish a collegial relationship with their professors and they gain more confidence in their own abilities. It provides them with practical experiences that they can document and use when seeking employment. Students who work in K-12 classrooms receive the benefits of working directly with students to see how information technology can be used to support learning. In this environment, they learn about different networking systems and infrastructure, educational software, curriculum requirements, school rules on appropriate use, the challenges of out-dated or limited resources, and many information management lessons.

Evolving Strategies

As this program continues, the PT^3 grant team will refine its approach and methods to improve and strengthen student mentor-faculty pairs. Expectations and guidelines need to be established for both the student and the faculty. Commitment must be mutual on both sides. Faculty members cannot expect students to produce content for their courses, but they can be active collaborators by soliciting and sharing constructive feedback. Everyone must be an active participant in the learning process. Student mentors are not substitutes for secretarial assistance. Student mentors must learn how to be effective teachers and supporters of information technology integration. With collaboration and support, both parties gain from this partnership.

Overall, both the pre-service teacher and the education faculty benefit from this model. The knowledge and energy that a college student provides is a resource to professors, K-12 faculty and K-12 students. In turn, pre-service teachers gain experience, confidence, and practical application to help prepare them to become tomorrow's teachers.

Panelists

Russell M. Agne, Ph. D., College of Education and Social Services, University of Vermont. (Russell.Agne@uvm.edu) Russell M. Agne is Professor of Education at the University of Vermont with responsibilities in elementary and secondary teacher education. He holds a Ph.D. in science education/curriculum and instruction from The University of Connecticut, a M.S. in earth science education from Syracuse University and a B.S. in Secondary Education-Science from Central Connecticut State College. He has published extensively in journals such as *The Science Teacher*, *The Journal of Teacher Education*, *American Journal of Physics*, *Teachers College Record*, *The School Counselor*, *Science Education*, *Phi Delta Kappan*, *The Journal of Research in Science Teaching*. His most recent book, co-authored with John H. Clarke is *Interdisciplinary High School Teaching: Strategies for Integrated Learning* (1997) published by Allyn and Bacon. Professor Agne has served as PI for more than 20 grants and projects to implement science curriculum through NSF, Exxon Education Foundation, The Apple Computer Foundation, Eisenhower Title II Funds, and Bell Atlantic Foundation. He has been elected a Fellow of The American Association for the Advancement of Science, and currently serves as IHE Representative on the Executive Board of the Vermont Science Teachers Association. He has served as Department Chair of Education at UVM and Associate Dean of its Graduate College.

Adam Deyo, PT3 Graduate Assistant, College of Education and Social Services, University of Vermont. (Adam.Deyo@uvm.edu) Mr. Deyo holds a Bachelor of Science in Early Childhood Education from the University of Vermont and a Level One Teacher Licensure for Kindergarten through Third Grade. He was a Child Development Specialist at the University of Vermont's Campus Children's School for two years working with Infants, Toddlers, and Preschoolers. In addition, he mentored two separate groups of student teachers in the classroom throughout their pre-service work with young children each year. Mr. Deyo currently is seeking a M.Ed at the University of Vermont and assists on all aspects of the Preparing Tomorrow's Teachers to Use Technology Grant in the College of

Education and Social Services. He is also is a coordinator for the Vermont Association for the Education of Young Children and a member of the State of Vermont Early Childhood Technology Board.

Sandra A. Lathem M.Ed., PT3 Outreach Coordinator, College of Education and Social Services, University of Vermont. (Sandra.Lathem@uvm.edu) As PT3 Outreach Coordinator, Ms. Lathem recruits and supervises student mentors that work with K-12 faculty in the Burlington and South Burlington School Districts. She supports UVM student mentors to assist them with their knowledge and integration of technology in the K-12 classroom and works with K-12 faculty to set goals and objectives for the student-faculty mentorship. Previously, Ms. Lathem served as the Technology Coordinator for the Addison Northeast Supervisory Union in Bristol, Vermont and has been an educational technologist in Vermont school systems during the last ten years. Formerly, Ms. Lathem was the Executive Director of VITA-Learn, a statewide, non-profit organization supporting information technology integration in Vermont K-12 schools. Ms. Lathem received her Masters of Education in Professional Development, Curriculum and Instruction from the University of Vermont in 1995.

Joyce L. Morris, Ed. D., PT3 Professional Development Coordinator, College of Education and Social Services, University of Vermont. (Joyce.Morris@uvm.edu) Professor Morris is an assistant professor in the Department of Education at the University of Vermont. Her research interests include electronic portfolio construction for assessment and learning and professional development of faculty using technology tools. At the University of Vermont, she has taught undergraduate courses in educational technology, science methodology, portfolio construction, and general education. At the graduate level, she offers courses in using computers in the classroom, web design, telecommunications, and connecting technology to the standards for in-service teachers. Prior to her appointment at the University of Vermont, Professor Morris was a science teacher who integrated technology into her curriculum at a Bronx, N.Y. middle school. She wrote and received a grant from Apple Computer that provided a 22 station, networked classroom in 1989. Using these computers, students created science animations, used computer probes to conduct experiments and record data, published science pictionaries for younger students, and participated in a number of telecommunication projects with TERC.

References

Abruscato, J.,Agne, R., Baker, S. (2001). *Welcome to Inquiry Block*. [Online] Available: http://www.uvm.edu/~inquiryb/

Beisser, S.R., (2000 conference proceedings). Technology Mentorships in Higher Education: An optimal match for expanding educational computing skills. *SITE-Society for Information Technology and Teacher Education International Conference*, San Diego, CA.

Beisser, S.R., Kurth, J.L. & Reinhart, P. (1997 conference proceedings). The teacher as learner: An undergraduate student and faculty mentorship success. *SITE-Society for Information Technology and Teacher Education International Conference*, Orlando, FL.

Bell, L. (Ed.) (2001). Preparing tomorrow's teachers to use technology. Perspectives of the leaders of twelve national education associations. *Contemporary Issues in Technology and Teacher Education*, 1(4). [Online]
Available: http://www.citejournal.org/vol1/iss4/currentissues/general/article1.htm

Franklin, T., Turner, S., Kariuki, M. and Duran, M. (2001). Mentoring Overcomes Barriers to Technology Integration. *Journal of Computing in Teacher Education*, 18(1), 26-31.

Knox, B., Mekkelsen, J. (2001). *Welcome to the Literacy Block: Learning to Teach Reading and Writing Responsively*. [Online] Available: http://www.uvm.edu/~litblock/.

McGee, P. (2000). *Preservice Technology Mentoring*. San Diego, CA.: Society for Information Technology and Teacher Education International Conference. (ERIC Document Reproduction Services No. ED 444 571)

National Educational Technology Standards for Teachers, (2000). *International Society for Technology in Education (ISTE) NETS Project.* [Online] Available: http://www.iste.org.

Rathbone, C. (2001). *Charlie Rathbone's Home Page.* [Online] Available: http://www.uvm.edu/~crathbon/.

Student Mentors and Technology Interns (2001). [Online] Available: http://www.uvm.edu/~cess/pt3/mentors.html.

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